IN THE CLAIMS:

1. (Currently Amended) A method of testing a plurality of memory circuits included in a semiconductor device, comprising steps of:

selecting the plurality of memory circuits and causing the memory circuits to perform a read/write operation;

comparing plural pieces of read data read from the plurality of memory circuits in a read operation with one another and generating a first signal as first comparison results;

comparing one of the plural pieces of read data, which is read from a predetermined one memory circuit, with write data and generating a second signal as a second comparison result in parallel with the first signal; and

testing the plurality of memory circuits based on the first and second signals.

2. (Original) The method according to claim 1, wherein the step of comparing one of the plural pieces of read data with the write data includes comparing a specific one of the plural pieces of read data with the write data.

3. (Previously Presented) The method according to claim 1, further comprising a step of temporarily holding the first signal.

4. (Original) The method according to claim 1, further comprising a step of temporarily holding the plural pieces of read data.

5. (Previously Presented) The method according to claim 4, further comprising a step of temporarily holding the first signal.

6. (Currently Amended) A semiconductor device comprising:

a plurality of memory circuits each of which performs data writing and data reading;

a processing unit coupled to the plurality of memory circuits for accessing one of the plurality of memory circuits for data writing and data reading by supplying an address signal thereto;

an address decoder coupled to the processing unit for receiving the address signal and generating a plurality of select signals for selecting the plurality of memory circuits in a test mode, wherein the plurality of memory circuits perform data writing and data reading in accordance with the plurality of select signals;

a multiplexer coupled to the plurality of memory circuits and the processing unit for supplying the processing unit with read data read from a predetermined one memory circuit which is accessed by the processing unit; and

a comparator coupled to the plurality of memory circuits for comparing plural pieces of read data respectively read from the plurality of memory circuits with one another in the test mode and generating a first signal as first comparison results, wherein in the test mode, the processing unit compares data written in the plurality of memory circuits with one of the plural pieces of read data read from the predetermined one memory circuit and supplied from the multiplexer and generates a second signal as a second comparison result to test the plurality of memory circuits based on the first and

second signals, wherein the comparator generates the second signal in parallel with the first signal.

7. (Previously Presented) The semiconductor device according to claim 6, wherein the address decoder generates the plurality of select signals based on an address signal for the predetermined memory circuit and wherein the multiplexer receives the plurality of select signals from the address decoder and supplies data read from the predetermined memory circuit to the processing unit based on the plurality of select signals in the test mode.

8. (Previously Presented) The semiconductor device according to claim 6, wherein the address decoder decodes the address signal to generate a decode signal and wherein the multiplexer receives the decode signal from the address decoder and supplies data read from the predetermined memory circuit to the processing unit in accordance with the decode signal.

9. (Previously Presented) The semiconductor device according to claim 6, wherein the comparator temporarily holds the first signal.

10. (Original) The semiconductor device according to claim 6, wherein the comparator supplies an interruption signal to the processing unit when the plural pieces of read data do not coincide with one another.

11. (Previously Presented) The semiconductor device according to claim 6, wherein the comparator includes a memory circuit for temporarily holding the first signal.

12. (Original) The semiconductor device according to claim 6, wherein the comparator includes a first memory circuit for temporarily holding the plural pieces of read data.

13. (Previously Presented) The semiconductor device according to claim 12, wherein the comparator includes a second memory circuit for temporarily holding the first signal.

14. (Currently Amended) A system for testing a plurality of memory circuits included in a semiconductor device, comprising:

an address decoder for selecting the plurality of memory circuits and causing the memory circuits to perform a read/write operation;

a comparator for receiving plural pieces of read data read from the plurality of memory circuits and comparing the plural pieces of read data with one another to generate a first signal as first comparison results; and

a processing unit for comparing one of the plural pieces of read data, which is read from a predetermined memory circuit, with write data and generating a second signal as a second comparison result to test the plurality of memory circuits based on the first and second signals, wherein the processing unit generates the second signal in parallel with the first signal.

15. (Previously Presented) The system according to claim 14, further comprising a multiplexer for receiving the plural pieces of read data and supplying a specific one of the plural pieces of read data read from the predetermined memory circuit to the processing unit.

16. (Previously Presented) The system according to claim 14, wherein the comparator includes a memory circuit for temporarily holding the first signal.

17. (Original) The system according to claim 14, wherein the comparator includes a first memory circuit for temporarily holding the plural pieces of read data.

18. (Previously Presented) The system according to claim 17, wherein the comparator includes a second memory circuit for temporarily holding the first signal.